

Work Order ID 149089

Tuesday, July 19, 2016 2:45:51 PM

149089

Page 1

Item ID: D4634-1 Accept ***N900040100*** Setup Start ***NS1***
 Revision ID: Stop ***NS2***
 Item Name: Fwd, Center Ceiling Panel
 Start Date: 7/12/2016 Start Qty: 4.00 ***4*** Cust Item ID:
 Required Date: 7/19/2016 Req'd Qty: 4.00 ***4*** Customer:
 Reference:

Approvals: Process Plan: **DAS 21** Date: **JUL 20 2016** Tooling: Date: Run Start ***NR1***
 QC: **9-89** Date: SPC (Y/N): Date: Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
D4634 2AC	G								
100 50	HAND FINISHING THERMOFORMING	0.00				DAS 07 9-89			
100									
Thermoform	Memo	0.15							
Thermoforming Machine	Cut Blanks								16/07/20
105 50	Dry Material	0.00				DAS 07 9-89			
105									
HandThermo	Memo	0.00							
Hand Finishing Thermoforming	Dry Sheet as per QSI022 POLYCARBONATE								16/07/20
	Temp: 245 deg								
	Time IN: 5:00 PM								
	Time OUT: 6:00 AM								

JUL 27 2016

Per.....

Pto →

DQA: Aut Date: 09/22/2016



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: RAU Date: SEP 13 2016

Work Order update only ☐

Work Order: <u>149089</u> Part No. <u>D4634-1</u> NCR No. <u>16-6011</u>		DISPOSITION Rework ☒ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS <table style="width:100%;"> <tr> <td>Skid-tube ☐</td> <td>Cross tube ☐</td> <td>Water Jet ☐</td> <td>Engineering ☐</td> </tr> <tr> <td>Machining ☐</td> <td>Small Fab ☐</td> <td>Prod. Eng. Coord. ☒</td> <td>Quality ☐</td> </tr> <tr> <td>Thermoforming ☐</td> <td>Finishing ☐</td> <td>Rec/Store/Packaging ☐</td> <td>Other ☐</td> </tr> <tr> <td>Large Fab ☐</td> <td>Composite ☐</td> <td>Supplier ☐</td> <td></td> </tr> </table>						Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☒	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐																																																																																																															
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DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐																																																																														
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Work Order ID 149089

Tuesday, July 19, 2016 2:45:51 PM

149089

Page 3

Item ID: D4634-1

Accept

N900040100

Setup Start

NS1

Revision ID:

Stop

NS2

Item Name: Fwd, Center Ceiling Panel

Start Date: 7/12/2016 Start Qty: 4.00

4

Cust Item ID:

Required Date: 7/19/2016 Req'd Qty: 4.00

4

Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start

NR1

QC:

Date:

SPC (Y/N):

Date:

Stop

NR2Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

140

QC6- Inspect dimensions to drawing
Dimensional Inspection

0.00

140

QC

Quality Control

Memo

Fill in Inspection Sheet Rev A

0.00

16

9-89

14/02/12

7to →

150

QC5- Inspect part completeness to step on W/O

0.00

150

QC

Quality Control

Memo

0.01

X2 DAS
27
9-89
AUG 12 2016

160

Packaging

0.00

160

Packaging

Packaging

Memo

PPP149139

PPP149140

DAS
27
9-89
AUG 12 2016

DQA: _____ Date: _____

**WORK ORDER NON-CONFORMANCE / UPDATE**

QA Closed: _____ Date: _____

Work Order update only ☒

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Date : _____	Step #: _____	QTY Effective : _____		MRB (QSI042) Approval DAS 16 9-89	
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UPDATE STEP # 140 ; 100 to QC2 ; QCR 240 31 88-6				Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval	
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Page 4

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N900040100Setup Start ***NS1***

Revision ID:

Stop ***NS2***

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Cust Item ID:

Required Date: 7/19/2016 Req'd Qty: 4.00

4

Customer:

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Approvals:

Process Plan: _____

Date: _____

Tooling: _____

Date: _____

Run Start ***NR1***

QC: _____

Date: _____

SPC (Y/N): _____

Date: _____

Stop ***NR2***Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

170

QC21- Final Inspection - Work Order Release

0.00

170

QC

Memo

0.07

Quality Control

DAS
21
9-09

AUG 15 2016

DAS
21
9-09

AUG 15 2016

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				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
OTHER : _____					

Picklist Print

Tuesday, July 19, 2016 2:45:54 PM

Page 1

Work Order ID: 149089

149089

Parent Item: D4634-1

D4634-1

Parent Item Name: Fwd, Center Ceiling Panel

Start Date: 7/12/2016

Required Date: 7/19/2016

Start Qty: 4.00

Required Qty: 4.00

Comments: IPP Rev. A 12/08/09 New Issue DL
12/11/08 Document release DL VERIFIED BY:JLM
Dwg Update DL verf: DD
DL
DL
DL
IPP Rev B
IPP Rev C 13/07/09
IPP Rev D Dwg Update 13/12/23
IPP REV E Dwg update 14/01/09
IPP Rev F Dwg. update 14/02/03
IPP Rev G Dwg. Update 15/01/27 DL

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
MLEXS.093-F6006-07		Purchased	No			100	sf	380.9000	17.3	69.2			

MI FXS 093-F6006-07

GE PLASTICS LEXAN SHEET (Grey)

Location

MAT023

m129738

Loc Qty

380.9

380.9

Loc Code

DAS
07
9-89

16/00/13

55.97 ft

DQA: _____ Date: _____

**WORK ORDER NON-CONFORMANCE / UPDATE**

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date : _____	Step #: _____	QTY Effective : _____		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition		Completed By	
2AG TO 08-8				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
OTHER : _____					

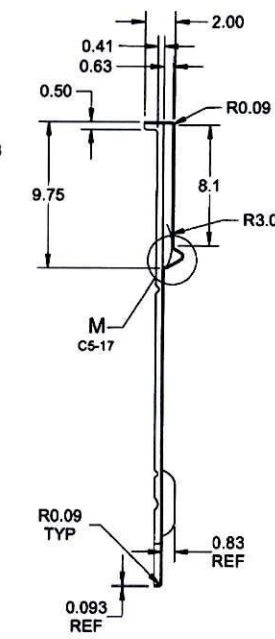
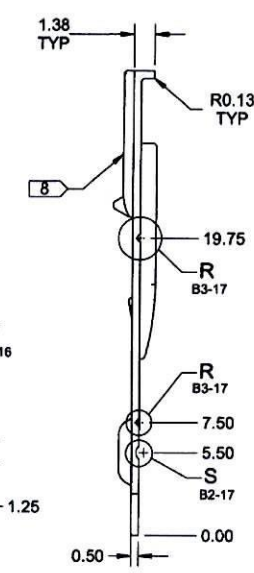
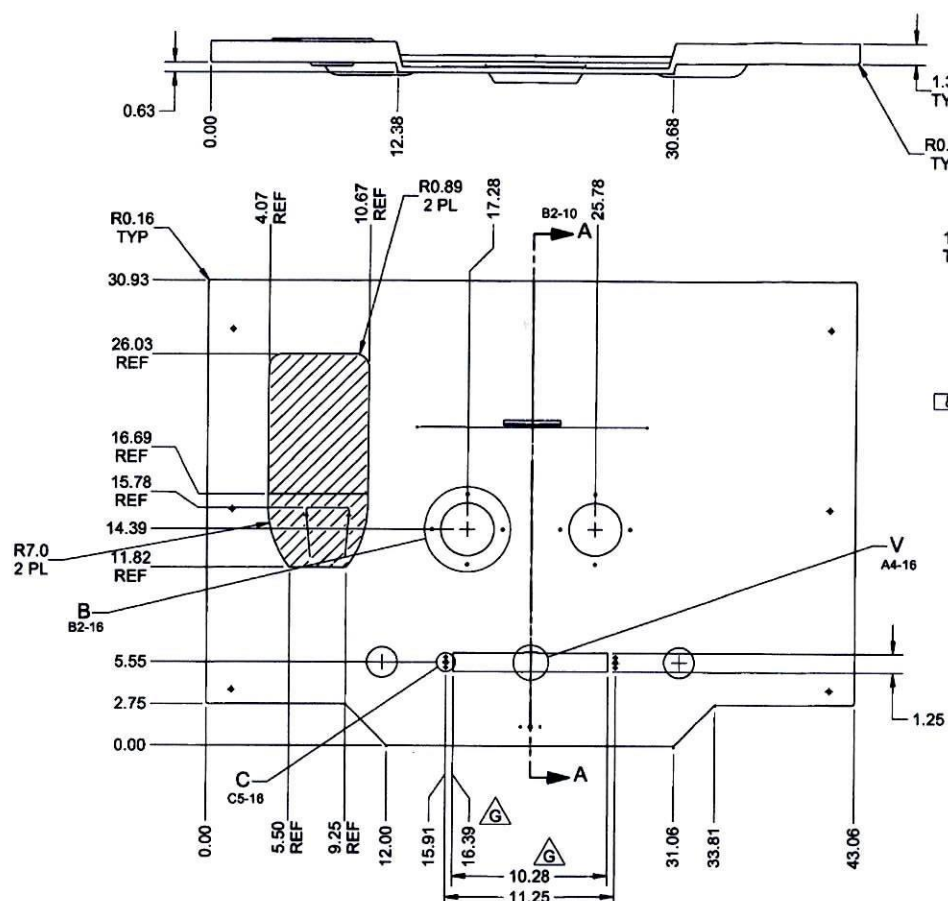
DART AEROSPACE LTD		Work Order: 149089
Description: Fwd Center Ceiling Panel		Part Number: D4634-1
Inspection Dwg: D4634 Rev: <i>FG 8/14/08/12</i>		Page 1 of 1

FIRST ARTICLE INSPECTION CHECKLIST

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
12.00	+/-0.030	12.00	✓		T.M	
24.00	+/-0.030	24.00	✓		T.M	
39.75	+/-0.030	39.75	✓		T.M	
11.66	+/-0.030	11.66	✓		T.M	
31.41	+/-0.030	31.41	✓		T.M	
1.300	+/-0.010	1.307	✓		ED-6	
Ø0.250	+0.005/-0.001	Ø0.250	✓		ED-6	
Ø2.030	+0.012/-0.001	2.030	✓		ED-6	
4.667	+/-0.010	4.669	✓		ED-6	
2.334	+/-0.010	2.336	✓		ED-6	
Ø3.50	+/-0.030	3.522	✓		ED-6	
Ø0.191	+0.005/-0.001	Ø0.190	✓		ED-6	
3.80	+/-0.030	3.80	✓		ED-6	
0.63	+/-0.030	0.625	✓		ED-6	
1.25	+/-0.030	1.238	✓		ED-6	
10.20	+/-0.030	10.250	✓		T.M	
11.25	+/-0.030	11.250	✓		T.M	
0.50	+/-0.030	0.520	✓		ED-6	
1.38	+/-0.030	1.39	✓		ED-6	
0.35	+/-0.030	0.370	✓		ED-6	

Measured by: DAS	Audited by: DAS	Preliminary Approval:
Date: 16 9-89 16/08/12	Date: 27 9-89 AUG 12 2016	Date:

Rev	Date	Change	Revised by	Approved
A	14.07.29	New Issue	KJ	



SECTION A-A C6-10

SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 149 089 MJS
160720

- NOTES:
- 1) MATERIAL: F6006 SUEDE/POLISHED GY5B133 LIGHT GREY LEXAN SHEET 0.093 THICK (REF DART SPEC MLEXS.093-F6006-07)
 - 2) FINISH: N/A
 - 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
 - 4) UNITS: INCHES UNLESS OTHERWISE NOTED
 - 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
 - 6) IDENTIFICATION: N/A
 - 7) WEIGHT: 5.65 lbs
 - 8) TEXTURE ON THIS SIDE
 - 9) 0.14 RADIUS NOT SHOWN FOR CLARITY
 - 10) DRILL & TRIM D4634-1 PER TOOL DT9836
 - 11) THERMOFORM PER QSI 022 USING DT9844 TOOL
MIN. THICKNESS AFTER FORMING:
SHADED AREA = 0.020
EDGES = 0.060
ELSEWHERE = 0.070
 - 12) LOCATE $\phi 2.030$ AT CENTER OF PROTRUDED SURFACE AS SHOWN

D4634-1 FWD, CENTER CEILING PANEL

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2015 JAN 26

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	DRAWN	RF		
	CHECKED	AK	DRAWING NO.	REV. G
	MFG. APPR.	DL	D4634	SHEET 10 OF 17
	APPROVED	HS	TITLE	SCALE
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8

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2

1

D

C

B

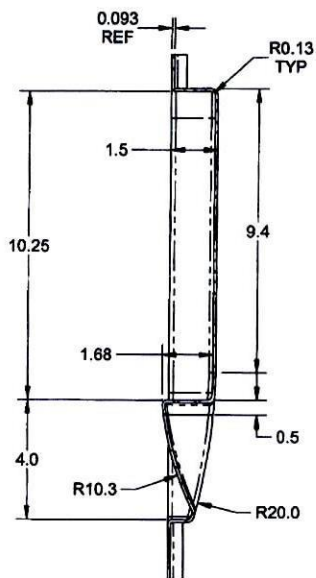
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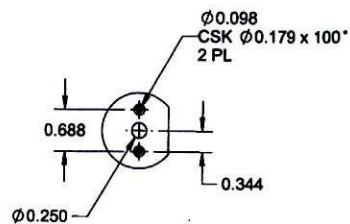
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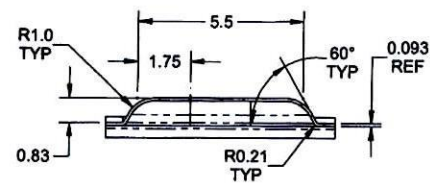
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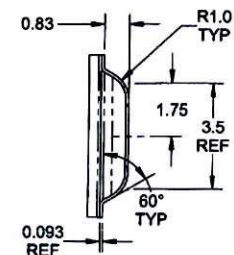
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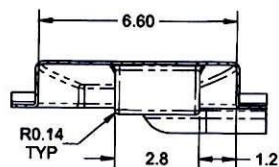
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B4-12
B4-14



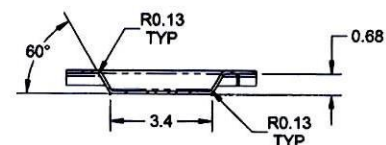
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C4-13
C4-15



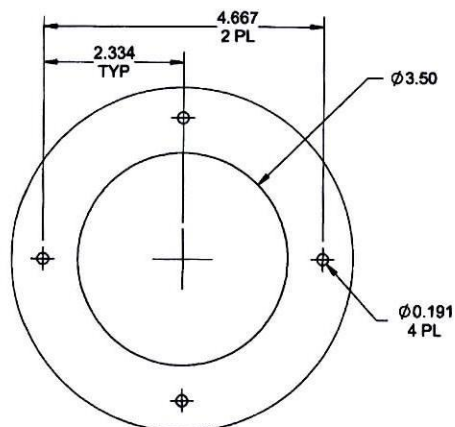
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C4-13
C5-16



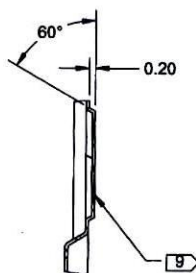
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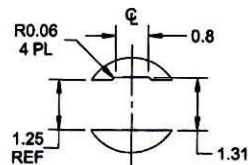
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SCALE 2X B6-13



DETAIL B
SCALE 4X B7-10
2 PL



DETAIL L
SCALE 4X TYP B2-13
C2-13
B2-14
C2-14



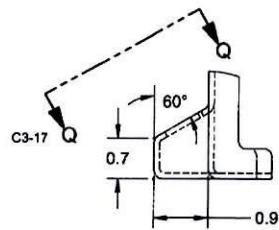
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SIMILAR

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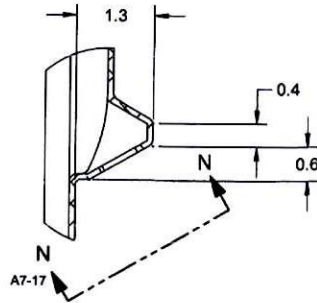
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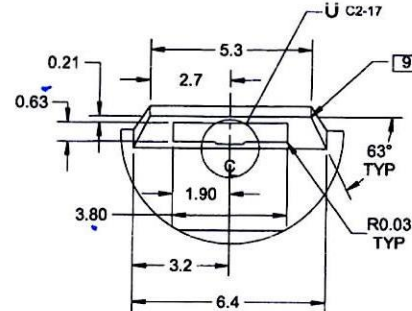
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CHECKED	AK	DRAWING NO.	REV. G
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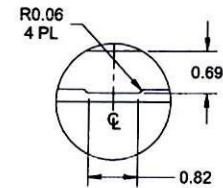
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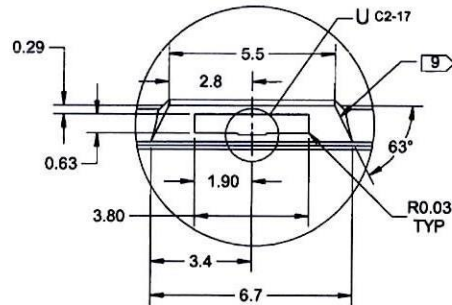
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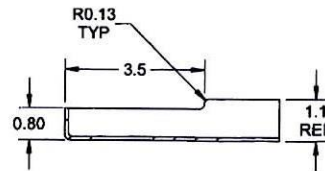
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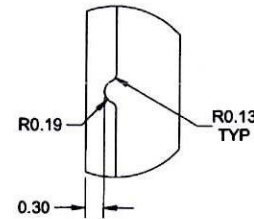
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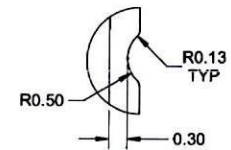
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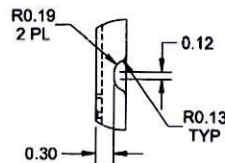
SECTION O-O B6-14
SCALE 1.3X



DETAIL R B3-10
SCALE 4X



DETAIL S B3-10
SCALE 4X



DETAIL T C2-14
SCALE 4X

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